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ABSTRACT

As part of a study which is following college graduates for 5 years, a survey of 2,264 graduates of York University (Ontario, Canada) who received B.A. degrees in 1995-96 shows that within 3 months of graduation, 54 percent of those seeking full-time employment had achieved this objective. The factors considered included background characteristics, institutional experiences, activities outside the university, potential job networks, generic skills, field of study, and grade point average. Independent of grades, academic honors, area of specialization, basic computer skills, and other factors, graduates from low-income families were less likely to be employed. Black graduates were also less likely to be employed. The findings of this survey are generally consistent with the labor market segmentation theory. Logistic regression of the single variables found the following variables had a statistically significant relationship to employment status: class (family income), ethnicity, weekly tutorial attendance, library use, participation in organized sports, having worked part-time in the final year, hours per week worked, help from professor in finding job, help from boy or girl friend in finding job, help from former employer in finding job, analytic skills, communication skills, organization skills, personal skills, basic computer skills, degree status, and departmental grouping. (Contains 18 references.) (JLS)

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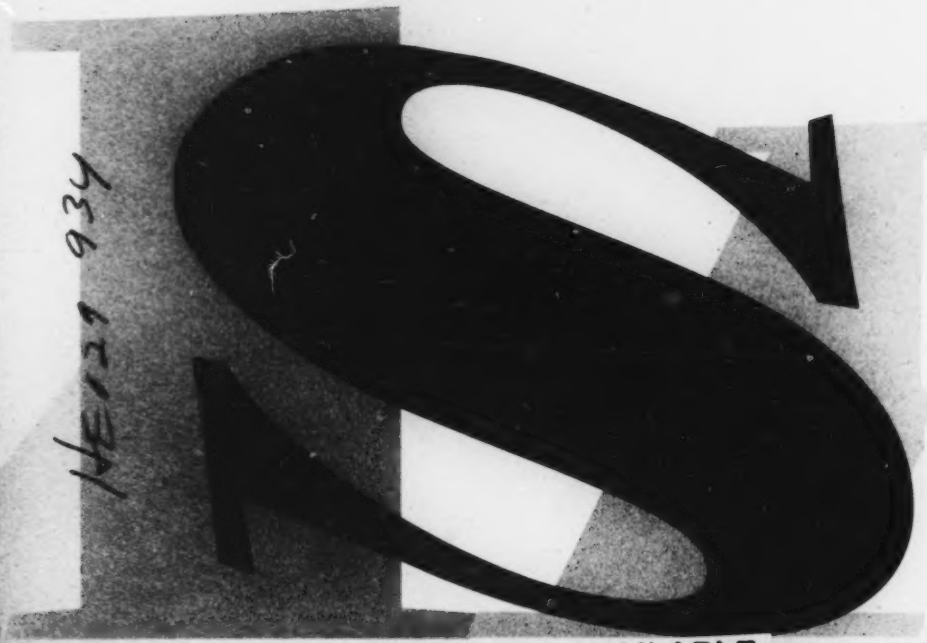
INSTITUTE FOR SOCIAL RESEARCH

WHO GETS JOBS?
INITIAL LABOUR MARKET EXPERIENCES OF YORK GRADUATES

WORKING PAPER

J. PAUL GRAYSON



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Who Gets Jobs?
Initial Labour Market Experiences of York Graduates

Working Paper

J. Paul Grayson
Institute for Social Research
York University

January 1997

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The following is a working paper. Comments are welcome.

Acknowledgements

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Other Publications on York Students

Racial Origin and Withdrawal From University
J. Paul Grayson (1997)

Under- and Over-Achievement in First Year
J. Paul Grayson (1996)

The Retention of First Year Students in Atkinson College: Institutional Failure or Student Choice?
J. Paul Grayson (1996)

Value Added in Generic Skills Between First and Final Year: A Pilot Project
J. Paul Grayson (1996)

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David A. Northrup and Michael Ornstein (1993)

Student Withdrawals at York University: First and Second Year Students, 1984-85
Gordon Darroch, David A. Northrup and Mirka Ondrack (1989)

Summary

A survey of recent York graduates shows that within three months of graduation, a minimum of 54% of those looking for full-time jobs had achieved their objective. This is good news. Unfortunately, not all graduates have equal chances of a full-time job in the Toronto labour market. Independent of grades, having an ordinary or honours degree, area of specialization, basic computer skills, and a number of other factors, graduates from low income families have relatively few full-time jobs. Black graduates are further disadvantaged. Findings such as these are particularly consistent with labour market segmentation theory.

Introduction

In Canada, students begin their studies with the hope that a university degree will help them get a job.[1] It will. At York University, for example, a minimum of 54% of students who graduated in November 1995 and June 1996 had full-time jobs within three months of graduation.[2] More generally, graduates of universities are more likely to be employed than those who have only a high school diploma.[3]

Unfortunately, it may take a while before a freshly minted B.A. gets a job. Moreover, the first job for many will only be part-time. Even those who initially get full-time jobs may lose them and most graduates will end up with positions that are less desirable than those held by their counterparts a generation ago.[4]

In attempts to give themselves an edge in the job market many students take subjects like business administration and computer science for which they believe there is a high demand. Up to now, there has been some merit to this short term strategy. Graduates with such qualifications have enjoyed an initial advantage in the labour market. Over the long haul, however, Arts graduates have done just as well in terms of jobs and salaries as graduates with degrees in high demand areas.[5]

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[1]See Chapman et al. (1997).

[2]The percentage is likely higher than 54%. Some early respondents to a graduate survey who did not have full-time jobs at the point they completed their surveys, would have been employed by the end of the approximate three month survey period.

[3]For an examination of the long term job prospects of university graduates in Canada see Finnie (1993) and Lapierre and Little (1996). For a summary of the U.S. literature see Pascarella and Terenzini (1991).

Stager (1996:8) shows that the private rate of return for bachelors and first professional degrees in Ontario (i.e., the annual advantage in salaries that accrues to individuals as a result of their having university degrees compared to high school diplomas) is 13.8% for males and 17.6% for females.

[4]An examination of the contemporary and past labour markets for Canadian graduates is provided by Krahn (1996). A series of articles on the transition from school to work in Canada can be found in Anisef and Axelrod (1993). For information on the transition in Ontario see Grayson and Hall (1993).

[5]See Finnie (1993) and Lapierre and Little (1996).

While we have some idea of the advantages associated with a university education, and we know that eventually graduates get sorted into jobs of varying levels of quality and pay, particularly in Canada we know little of how this sorting process occurs. Do graduates with the best marks get the best jobs? If they do, how do they get them? Through someone they know? Through university career centres?

Perhaps marks are less important than gender and ethno-racial origin when it comes to employment. In a segmented labour market, males might have an easier time than females, and white graduates perhaps have a better chance of getting jobs than non-whites. Maybe because of the confidence, social skills, and connections that come from having parents who are well off financially, class is more important than either gender or ethno-racial status.

It could be that characteristics like analytical, personal, and communications skills are the keys to success in the job market. Certainly employers have been stressing that in addition to subject matter expertise they are looking for graduates with skills such as these. Unfortunately, they are frequently disappointed in their searches.[6]

Perhaps none of the foregoing is important and what really matters is the graduate's major. It's not how much you know, it's what you know that counts. Perhaps all of the foregoing are important and in order to really make it in today's job market graduates must have unique combinations of high marks; good connections; be the right gender and colour and come from the right class; have skills valued by employers; and take the right subjects.

In order to trace these sorting out process for graduates of York University, in 1995 a study was started that will follow graduates for five years beyond their B.A. In the first phase of the study surveys were carried out of all Fall 1995 and Spring 1996 graduates of the faculties of Administrative Studies, Arts, Fine Arts, and Pure and Applied Science. These surveys, that provided information on graduates' initial labour market experiences, were conducted from October to December of 1995 and from June to August of 1996.

More information will come from surveys planned for two and five years after graduation. By the end of the project we should have a clear idea of what awaits York graduates after the B.A. and the factors that contribute to occupational success. As a first step in this large project, this report focuses on graduates'

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[6]The Conference Board of Canada (1992) has developed a list of skills that in addition to subject matter expertise are valued by employers. An examination of the skills valued by American employers is provided by Jones (1994).

initial experiences in the job market and the factors that explain who gets jobs.

Theoretical Perspectives

When trying to make sense out of information on education, jobs, and salaries social scientists frequently refer to theories of 'socialization' or 'human capital', 'certification', and 'labour market segmentation'. The main idea of socialization theory is that as a result of education, students acquire skills and knowledge that they would not otherwise have. University graduates earn more money than high school graduates because employers value their skills and knowledge. For the same reason, graduates of some disciplines may get jobs more easily and make more money than graduates of other fields.

Certification theory is less flattering. It does not assume that university graduates necessarily have more skills or knowledge than non-graduates. Instead, independent of actual skills and knowledge, a university education confers a positive status on graduates that is valued by employers. In part it is for this reason that university graduates find it easier to get jobs and earn more than students with only high school diplomas. For the same reason graduates of some programs get jobs more easily and have higher incomes than graduates of other programs.

Labour market segmentation theory suggests that there is not one labour market in which all compete fairly on the basis of their knowledge and skills. Instead, there are several restrictive markets defined in terms of factors such as gender and ethno-racial origin. As a result, independent of skills and knowledge, groups like females and non-whites may find it difficult to find jobs. Moreover, if they do find jobs, they may receive relatively low pay.

These three perspectives have potential implications for how we interpret the experiences of York graduates. Findings that within disciplines graduates who get jobs are those with high marks and other skills valued by employers would be understandable from the point of view of socialization theory. On the other hand, a discovery that graduates of certain disciplines, despite having low marks and poor skill levels, have more luck with getting jobs than graduates with high marks and good skills from related disciplines, would be understandable from the perspective of certification theory. For these graduates, a positive status has been conferred by their major discipline. Last of all, study results indicating that getting a job has more to do with things like gender, ethno-racial origin, and class, would be interpretable from the position of labour market segmentation theory.

Totally different bodies of theory focus on the ways in which undergraduate

experiences contribute knowledge and skills that may help graduates get jobs. For example, 'student involvement' theory takes the position that in addition to the formal curriculum, informal academic and social involvement of students in university activities helps develop knowledge and skills. Moreover, many students believe that university friends will be of future help in furthering career ambitions (the research, however, qualifies this assumption). To the degree that knowledge and skills help graduates get jobs, there is a link between student involvement theory and theories discussed previously.

Analysis Plan

In this study we are interested in the characteristics of bachelors graduates who get full-time jobs at the time of, or just after, graduation from York University. Data for the analysis were collected in two surveys of graduates from the faculties of Administrative Studies, Arts, Fine Arts, and Science. The first included all who graduated in the November convocation of 1995; the second involved all graduates from the same faculties who received their B.A.s in June, 1996.

The 2,264 graduates who participated in the study represent a response rate of 51%. As there were no differences between Fall 1995 and Spring 1996 graduates in the percentages of individuals with full-time employment, survey results can be pooled. When this is done, survey results show that 35% of graduates intended to continue their education in the following year, 9% were working part-time because they wanted that kind of work, 11% held part-time jobs because they could not find full-time employment, 26% had full-time jobs, 11% were unemployed and looking for full-time work, 1% were jobless and seeking part-time work, and 8% reported 'other' activities.[7] *In this study, comparisons will be made between, on the one hand, graduates with full-time jobs, and, on the other hand, those who were unemployed and looking for work and graduates working part-time because they could not get a full-time job.* Of this sub-group, 54% had full-time jobs while 46% were looking for full-time work.

Analysis will proceed in two steps. First, relationships between employment status and various factors suggested by the theories that have been discussed will be examined. The objective is to determine which relationships are statistically significant. Second, logistic regression will be used to examine the combined

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[7]Although in recent years a growing number of Canadian universities have conducted exit surveys, the different methodologies employed make comparisons of immediate post-graduation employment rates risky.

impact of various factors found to be statistically significant on whether or not graduates have full-time jobs.

Theoretically relevant factors that will be examined for a statistically significant relationship with employment status can be divided into six general categories:

- Background Characteristics
- Institutional Experiences
- Activities Outside the University
- Potential Job Networks
- Generic Skills
- Program and GPA

Each will be examined in the remainder of this report.

Background Characteristics

In the surveys, information was collected on the following background characteristics:

- Age
- Gender
- Class (annual parental family income)
- Ethno-Racial Status

While there were no statistically significant differences in employment status based on age and gender, it was a different story with class and ethno-racial origin.[8] As seen from Table 1, among graduates reporting parental family incomes less than or equal to $25,999, 69.2% did not have a full-time job. Among graduates with family incomes from $26,000 to $99,999, only 42.3% reported not having full-time work. For graduates in the parental family income category greater than or equal to $100,000, fewer still, 30.0%, said that they were not working full-time. Clearly, class background as measured by parental family income has a large impact on whether or not recent graduates have full-time jobs.[9]

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[8]Results of the National Graduates Survey of 1990 also show that gender did not affect how quickly graduates got jobs (Lapierre and Little, 1996:22).

[9]In this study of short-term job experiences, family income (class) clearly has a large effect on whether or not graduates have a full-time job. In their review of the literature, however, Pascarella and Terenzini (1991:486) conclude that the impact of parents' socio-

Table 1: Employment Status by Family Income

		Employment Status		
		Not Employed FT	Employed FT	Group Total
Family Income	LE $25,999	69.2%	30.8%	100.0%
		74	33	107
	$26,000 to $99,999	42.3%	57.7%	100.0%
		229	313	542
	GE $100,000	30.0%	70.0%	100.0%
		45	105	150
	Don't Know	51.8%	48.2%	100.0%
		146	136	282
Group Total	Row %	45.7%	54.3%	100.0%
	Count	494	587	1081

Chi-square sig < .001

Table 2: Employment Status by Ethno-Racial Origin

		Employment Status		
		Not Employed FT	Employed FT	Group Total
Ethno-Racial Origin	European	41.8%	58.2%	100.0%
		320	446	766
	Black	60.0%	40.0%	100.0%
		36	24	60
	South Asian	45.7%	54.3%	100.0%
		21	25	46
	Chinese	65.3%	34.7%	100.0%
		49	26	75
	Other	50.5%	49.5%	100.0%
		56	55	111
	Missing	52.2%	47.8%	100.0%
		12	11	23
Group Total	Row %	45.7%	54.3%	100.0%
	Count	494	587	1081

Chi-square sig < .001

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Information in Table 2 indicates that ethno-racial origin is of less importance than class. While 58.2% of graduates of European origin reported full-time jobs, only 34.7% of graduates of Chinese origin were employed full-time. The figures for graduates of South Asian and 'other' non-European origins, and Blacks, were 54.3%, 49.5%, and 40.0% respectively.[10]

Findings with respect to both class and ethno-racial origin can be interpreted from the perspective of labour market segmentation theory. Clearly, opportunities in terms of full-time jobs are related to both class and ethno-racial origin. The extent to which each has an independent effect on employment status will be examined later.

Institutional Experiences

As noted earlier, student involvement theory suggests that both formal and informal university experiences may have consequences for future jobs. Certain experiences may contribute to the development of important knowledge and skills and link students to peer networks that might be of help in future careers.[11] Should it be found that particular experiences contribute to the possibility of a full-time job, the university may want to enhance such experiences.

The university experiences examined in this report fall into the categories of out-of-class faculty assistance and academic and social involvement. Measures of each are as follows.

Faculty Assistance

- Discussing plans for future occupations with faculty, teaching assistants, lab demonstrators, and studio technicians.
- Obtaining information and/or advice on finding a job from faculty, teaching

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economic status on long-term job outcomes is minimal.

[10]These figures are consistent with the results of the National Graduates Survey of 1990 indicating that while in 1992 the overall unemployment rate of 1990 graduates was 10%, for visible minority graduates it was 14% (Lapierre and Little, 1996:25).

[11]Some research indicates that in general participation in extracurricular activities helps in getting a first job (Nash et al., 1973); however, other research shows that over the long-term extracurricular activities do not predict occupational success (Howard, 1986). With respect to athletic participation, Pascarella and Terenzini (1991:478) argue that research on the relationship between it and occupational status is inconclusive. That under certain circumstances friendships made in university may be of continuing significance to careers is supported by Granovetter (1974).

assistants, lab demonstrators, and studio technicians.

Academic Involvement

- Participating in voluntary activities such as talks and attending guest lectures.
- Percentage of lectures attended.
- Percentage of tutorials, labs, or studios attended.
- Frequency of library use.

Social Involvement

- Memberships in campus organizations such as clubs and student councils.
- Visits to campus pubs.
- Participation in organized campus sports.
- Participation in unorganized campus sports.
- Watching campus sports.
- Involvement in cultural events on campus.
- Attending cultural events on campus.
- Number of new friendships since starting university.
- Hours per week spent with new friends.

Faculty Assistance

In total, 40% and 19% of graduates reported having discussed plans for future occupations with faculty and teaching assistants etc. respectively. Differences between full-time employed graduates and others, however, were not statistically significant. As for obtaining advice or information on finding a job, 30% reported contacts with faculty for this purpose, and for the same reason 12% had contacts with teaching assistants etc. Once again differences between the full-time employed and others were not statistically significant. In other words, we cannot assume that these contacts with faculty improved students' job chances.

Academic Involvement

Overall, there were no statistically significant differences in the employment statuses of graduates based on their involvement in non-required academic activities. Similarly, the percentage of lectures attended was unrelated to future employment status. By comparison, statistically significant differences in employment status were related to weekly tutorial, lab, or studio attendance, and number of library visits in the last month of school.

From Table 3 it can be seen that among graduates who attended up to 90% of their tutorials, labs, or studio sessions, 60.7% reported full-time jobs. The full-

Table 3: Employment Status by Turorial Etc. Attendance and Library Visits

		Employment Status		
		Not Employed FT	Employed FT	Group Total
% Weekly Tutorial Etc. Attendance**	LE 90%	39.3%	60.7%	100.0%
		128	198	326
	91% to 99%	52.7%	47.3%	100.0%
		89	80	169
	100%	43.5%	56.5%	100.0%
		156	203	359
	Missing	50.0%	50.0%	100.0%
		10	10	20
	Inapplicable	53.6%	46.4%	100.0%
		111	96	207
Group Total	Row %	45.7%	54.3%	100.0%
	Count	494	587	1081
No. Library Visits Last Month**	LE 6	40.0%	60.0%	100.0%
		173	260	433
	7 to 14	52.3%	47.7%	100.0%
		160	146	306
	GE 15	46.4%	53.6%	100.0%
		141	163	304
	Missing	52.6%	47.4%	100.0%
		20	18	38
Group Total	Row %	45.7%	54.3%	100.0%
	Count	494	587	1081

*Chi-square sig. < .05; **Chi-square sig. < .01; ***Chi-square sig. < .001

Table 4: Employment Status by Participation in Organized Sports

		Employment Status		
		Not Employed FT	Employed FT	Group Total
Participation in Organized Sports	None	47.1%	52.9%	100.0%
		449	504	953
	One or More	34.2%	65.8%	100.0%
		38	73	111
	Missing	41.2%	58.8%	100.0%
		7	10	17
Group Total	Row %	45.7%	54.3%	100.0%
	Count	494	587	1081

Chi-square sig. < .05

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time employment figures for those going to from 91% to 99%, and to 100% of their tutorials etc., were 47.3% and 56.5% respectively. In essence, graduates with relatively low attendance were more likely than high attenders to be employed full-time. Moderate attenders, however, were less likely to report full-time jobs than high attenders.

The same pattern emerges for number of library visits. Among graduates making up to six library visits, 60.0% got full-time jobs. For those making seven to 14 visits the employment rate drops to 47.7%. It increases to 53.6% for graduates reporting 15 or more visits to the library in the last month of school.

These figures suggest that overall academic involvement does not contribute to full-time employment. While graduates with high levels of involvement measured in terms of tutorial, lab, or studio attendance and library visits found more jobs than graduates with moderate levels of involvement, the greatest number of full-time jobs were reported by graduates with low tutorial etc. attendance and library use.

Social Involvement

Among measures of social involvement, only one had a statistically significant relationship to employment status - participation in organized sports. Although only 10% of graduates reported organized sports involvement, as seen in Table 4, among those who participated in one or more organized sports, 65.8% were employed. Only 52.9% of non-participants held full-time jobs. Perhaps sports involvement gives graduates an edge for recreationally oriented jobs or for certain sales positions.

Activities Outside the University

There is evidence in the literature on transitions to the job market that some occupationally relevant activities help students get future jobs.[12] For example, being enrolled in a co-op program or having a part-time job related to a desired full-time position contributes to finding a job upon graduation. While student mythology sustains the belief that volunteer work may have a similar effect, there is little support in the literature for this position.

In the current study, data were collected on three types of possible outside activities.

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[12]Having part-time work related to a chosen career has been found to have a positive impact on career success (Pascarella and Terenzini, 1991:480).

Table 5: Employment Status by Part-Time Work in Last Year of Studies

		Employment Status		
		Not Employed FT	Employed FT	Group Total
Work During Your Last Year At York?***	No	60.2%	39.8%	100.0%
		153	101	254
	Yes	41.0%	59.0%	100.0%
		337	484	821
	Missing	66.7%	33.3%	100.0%
		4	2	6
Group Total	Row %	45.7%	54.3%	100.0%
	Count	494	587	1081
Hours Per Week Spent At All Jobs*** [a]	LE 13	44.2%	55.8%	100.0%
		106	134	240
	14 to 20	49.5%	50.5%	100.0%
		135	138	273
	GT 20	31.3%	68.8%	100.0%
		95	209	304
	Missing	59.8%	40.2%	100.0%
		158	106	264
Group Total	Row %	45.7%	54.3%	100.0%
	Count	494	587	1081

*Chi-square sig. < .05; **Chi-square sig. < .01; ***Chi-square sig. < .001

[a] With removal of missing data chi -square sig. < 001

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- Whether or not graduates worked part-time in their final year.
- The number of hours per week worked by graduates in their final year.
- Whether or not graduates did unpaid volunteer work.

While there are no differences in graduates' employment status based on whether or not they participated in volunteer work, statistically significant differences were found based on both having worked part-time and hours per week worked.

As seen from Table 5, 59.0% of graduates who worked part-time during the school year had full-time jobs while the corresponding figure for those who did not work was only 39.8%. Data in Table 5 also show that there was little difference in the likelihood of having a full-time job based on working 13 or fewer (55.8% employed full-time), or 14 to 20 hours per week (50.5% with full-time jobs); however, graduates who worked more than 20 hours a week were more likely than others to have full-time jobs (68.8% were employed full-time). Graduates who worked large numbers of hours in part-time jobs seem to begin the transition to employment before graduation.[13]

Potential Job Networks

Students who have others from whom they can get help in finding a job are at an obvious advantage.[14] As a result, graduates were asked if the following were helpful in their job search.

- Father
- Mother
- Sister
- Brother
- Uncle
- Aunt

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[13]The finding that graduates who worked a large number of hours per week part-time were more likely than others to have full-time jobs is consistent with the observation from the National Graduates Survey of 1990 that employers preferred B.A. graduates who already had full-time work experience (Lapierre and Little, 1996:38).

[14]A study carried out at McMaster University in Hamilton found that 20% of bachelors graduates cited friends and relatives as being most helpful when seeking first jobs. Only 10% mentioned former employers (McMaster, 1995:15). Along the same lines, a University of Alberta study found that in the first six months after graduation the most successful job search techniques involved networking. More importantly, 52% knew their employer before being hired or were referred by someone who knew the employer (Murphy and Coffin, 1996:i).

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Table 6: Help in Finding Job

		Employment Status		
		Not Employed FT	Employed FT	Group Total
Professor*	No	46.8%	53.2%	100.0%
		298	339	637
	Yes	38.2%	61.8%	100.0%
		76	123	199
	Don't Know	57.1%	42.9%	100.0%
		64	48	112
	Inapplicable	42.9%	57.1%	100.0%
		42	56	98
	Missing	40.0%	60.0%	100.0%
		14	21	35
Group Total	Row %	45.7%	54.3%	100.0%
	Count	494	587	1081
Boy/GirlFriend**	No	39.1%	60.9%	100.0%
		140	218	358
	Yes	44.6%	55.4%	100.0%
		141	175	316
	Don't Know	60.0%	40.0%	100.0%
		24	16	40
	Inapplicable	51.1%	48.9%	100.0%
		169	162	331
	Missing	55.6%	44.4%	100.0%
		20	16	36
Group Total	Row %	45.7%	54.3%	100.0%
	Count	494	587	1081
Former Employer**	No	48.8%	51.2%	100.0%
		275	289	564
	Yes	37.1%	62.9%	100.0%
		105	178	283
	Don't Know	50.0%	50.0%	100.0%
		44	44	88
	Inapplicable	50.9%	49.1%	100.0%
		58	56	114
	Missing	37.5%	62.5%	100.0%
		12	20	32
Group Total	Row %	45.7%	54.3%	100.0%
	Count	494	587	1081

*Chi-square sig. < .05; **Chi-square sig < .01; ***Chi-square sig. < .001

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- Cousin
- Spouse
- Family Friend
- York Student
- York Professor
- York Career Centre
- Other York Career Service
- Friend Outside York
- Boy/Girl Friend
- Federal Employment Centre
- Private Employment Agency
- Former Employer
- Contacts From Volunteer Work

From those on the list, only help from York professors, assistance from boy/girl friends, and help from former employers were found to have a statistically significant relationship to full-time employment.

The information in Table 6 shows that among graduates who felt that professors were helpful in finding a job, 61.8% were employed full-time. For those saying that professors were not helpful, only 53.2% had full-time jobs. While 55.4% of graduates who said that boy/girl friends were helpful in a job search were employed full-time, 60.9% who felt that boy/girl friends were not helpful had full-time jobs. In essence, there is an inverse relationship between boy/girl friend assistance in looking for a job and actually having one. (What this means in terms of causation, however, is difficult to say.) The pattern for former employers is the same as that of professors. Among those saying former employers were a source of help, 62.9% held full-time positions. Only 51.2% of those indicating former employers were not helpful had full-time jobs.

While we cannot conclude that because professors and former employers were helpful in job searches they were responsible for graduates finding jobs, there is at least a clear relationship between their support and full-time employment. The findings on boy/girl friends are more difficult to interpret.

Generic Skills

Socialization theory suggests that graduates with high levels of skills valued by employers would be more likely than others to get full-time jobs. As a result, employment status was correlated with scores on the following self-assessed

Table 7: Employment Status by Skills

		Employment Status		
		Not Employed FT	Employed FT	Group Total
Communication**	Bottom Third	52.4%	47.6%	100.0%
		196	178	374
	Middle Third	43.5%	56.5%	100.0%
		131	170	301
	Top Third	42.2%	57.8%	100.0%
		162	222	384
Group Total	Row %	46.2%	53.8%	100.0%
	Count	489	570	1059
Basic Computer***	Botton Third	53.6%	46.4%	100.0%
		178	154	332
	Middle Third	46.9%	53.1%	100.0%
		123	139	262
	Top Third	39.9%	60.1%	100.0%
		184	277	461
Group Total	Row %	46.0%	54.0%	100.0%
	Count	485	570	1055
Analytic**	Bottom Third	52.4%	47.6%	100.0%
		211	192	403
	Middle Third	43.1%	56.9%	100.0%
		138	182	320
	Top Third	40.9%	59.1%	100.0%
		141	204	345
Group Total	Row %	45.9%	54.1%	100.0%
	Count	490	578	1068
Organizing	Bottom Third	49.5%	50.5%	100.0%
		156	159	315
	Middle Third	47.8%	52.2%	100.0%
		160	175	335
	Top Third	41.5%	58.5%	100.0%
		177	249	426
Group Total	Row %	45.8%	54.2%	100.0%
	Count	493	583	1076
Personal**	Bottom Third	52.1%	47.9%	100.0%
		185	170	355
	Middle Third	45.6%	54.4%	100.0%
		154	184	338
	Top Third	39.9%	60.1%	100.0%
		149	224	373
Group Total	Row %	45.8%	54.2%	100.0%
	Count	488	578	1066

*Chi-square sig. < .05; **Chi-square sig. < .01; ***Chi-square sig. < .001

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generic skills indexes:[15]

- Analytic (critical thinking etc.)
- Communication (verbal, oral, reading)
- Organizing (getting things done on time)
- Comparative (Canada in comparative and historical perspective)
- Job Procuring (various job search activities)
- Basic Numeracy (percentages, basic equations, square root)
- Personal (getting on with others, knowing own limitations, etc.)
- Basic Computer (word processing, spread sheet, statistical analysis)

It should be noted that employer groups have been emphasizing the need for university graduates to have, in addition to subject matter expertise, analytic, communication, and personal skills, and to be numerate and computer literate.

For correlation analysis, a code of 0 was given to graduates without full-time jobs and 1 to those with full-time employment. Possible scores on skill dimensions ranged from a low of 1 to a high of 5.

As seen from the following list, correlations between employment status and analytic, communication, organizing, personal, and computer skills were statistically significant, but small (correlations are not given for skills listed above that were not statistically significant). Nonetheless, the positive correlations between various skills and having a full-time job are consistent with the central proposition of socialization theory.

Skill	*Correlation*	*Significance*
Analytic	.09	.005
Communication	.07	.026
Organizing	.08	.011
Personal	.08	.008
Computer	.13	.000

The relationship between skills and employment is represented in tabular form in Table 7. Graduates have been categorised in terms of their skills scores being in the top, middle, or bottom third. For communication skills the biggest difference is between graduates in the bottom as compared to the middle and top third. While only 47.6% of graduates in the bottom third have full-time jobs, 56.5% and 57.8% of those in the middle and top thirds are employed full-time.

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[15]For more information on the questions used in the construction of the indexes, and their validation, see Grayson (1996).

Among graduates in the top third in terms of basic computer skills, 60.1% have full-time jobs. In the middle and bottom thirds 53.1% and 46.4% respectively are employed full-time.

For analytic skills the primary distinction is between graduates in the bottom third compared to those in other categories. Among the bottom third, 47.6% report having full-time jobs. The same is true for 56.9% and 59.1% of the middle and top third respectively.

Regarding organizing skills, 58.5% in the top third are working full-time compared to 52.2% in the middle, and 50.5% in the bottom third. Note, however, that despite a statistically significant correlation between organizing skills and employment, chi-square is not significant.

Among graduates in the top third of personal skills, 60.1% are employed full-time. The figures for those in the middle and bottom thirds are 54.4% and 47.9% respectively.

Both the correlational and tabular analyses substantiate the fact that there is a positive relationship between self-assessed generic skills and the likelihood of having a full-time job. This finding validates one of the central propositions of socialization theory that graduates with skills valued by employers are more employable than other graduates.

Program and GPA

Socialization theory would also suggest that employment status would be related to degree status (ordinary or honours), field of study, and GPA. If graduates with honours compared to ordinary degrees can be viewed as having more knowledge and skills it can be expected that they will be more likely to have full-time jobs. Similarly, graduates, like those from business and computer science, having knowledge and skills that are in high demand, can be expected to have full-time employment to a greater degree than graduates of other fields. Finally, to the extent that grade point average (GPA) indicates the degree of mastery graduates have over a body of knowledge, it might be expected that graduates with high GPAs would be more likely than those with low grades to be employed full-time.[16]

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[16]No previous research could be found on the relationship between GPA and getting a first job; however, in a review of the literature focusing on early occupational status, Pascarella and Terenzini (1991:472) conclude that GPA only explains about 1% of the variance in early occupational status. In addition, they estimate that, "the average

Table 8: Employment Status by Degree Status and Department

		Employment Status		
		Not Employed FT	Employed FT	Group Total
Degree Status*[a]	Ordinary	48.1%	51.9%	100.0%
		151	163	314
	Honours	41.0%	59.0%	100.0%
		186	268	454
	Missing	50.2%	49.8%	100.0%
		157	156	313
Group Total	Row %	45.7%	54.3%	100.0%
	Count	494	587	1081
Department Grouping***	Business Related	33.9%	66.1%	100.0%
		20	39	59
	Social Science	48.3%	51.7%	100.0%
		270	289	559
	Humanities	45.1%	54.9%	100.0%
		74	90	164
	Languages and Linguistics	39.6%	60.4%	100.0%
		21	32	53
	Math and Statistics	59.3%	40.7%	100.0%
		32	22	54
	Computer Science	34.1%	65.9%	100.0%
		14	27	41
	Other Sciences	65.2%	34.8%	100.0%
		15	8	23
	Physical Education	40.6%	59.4%	100.0%
		13	19	32
	Dance, Film, and Theatre	19.5%	80.5%	100.0%
		8	33	41
	Fine and Visual Art, Cultural Studies, and Music	51.0%	49.0%	100.0%
		25	24	49
Group Total	Row %	45.8%	54.2%	100.0%
	Count	492	583	1075

*Chi-square sig. < .05; **Chi-square sig. < .01; ***Chi-square sig. < .001

a. The large number of missing cases is due to the fact that data for this variable were unavailable for the November survey. With missing data removed, chi-square sig. < .05.

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Information on degree status in Table 8 indicates that there is a slight advantage in having an honours as compared to an ordinary degree. Whereas 59.0% of the former have full-time jobs, 51.9% of the latter are employed full-time.

To facilitate the examination of the relationship between field of study and employment status, departments were grouped in terms of similarities in proportions of graduates who were employed full-time. Business related departments include all departments associated with the Faculty of Administrative Studies as well as the economics and business program in the Faculty of Arts.

Overall, 54.2% of graduates examined in this study report full-time jobs. Departmental groupings, in descending order, with full-time employment rates above average are: dance, film, and theatre (80.5%), business related (66.1%), computer science (65.9%), languages and linguistics (60.4%), and physical education (59.4%). Groupings, in descending order, with full-time employment rates below average are: social sciences (51.7%), fine and visual art, cultural studies, and music (49.0%), mathematics and statistics (40.7%), and sciences other than computer science (34.8%).[17] Clearly, consistent with socialization theory, the knowledge and skills associated with degrees in some areas are more valued by employers than degrees in other areas.

Surprisingly, *overall there was no statistically significant correlation between GPA and employment status* (r =.05 sig. = .08). When graduates were divided in thirds in terms of GPA, 51.4% of those in the bottom third, 53.9% in the middle third, and 55.2% of graduates in the top third were employed full-time; however, differences were not statistically significant.

Even more important than the overall lack of association between GPA and employment status is that with one exception there is no relationship between the two variables within departmental groupings. As seen from the following list, the only grouping in which there is a statistically significant relationship is

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correlations of grades with performance and mobility indexes to be as follows: .18 with job performance, .17 with rate of promotion, and .14 with the job level or level of responsibility attained in one's career. What this means is that only about 2 to 3 percent of the differences in job performance and career mobility are explainable by differences in college grades." In short, while grades may indicate the extent to which students have mastered a certain body of knowledge, they have limited predictive ability in job related areas.

[17]A study of the 1993 graduates of all of British Columbia's public universities also revealed that science and applied science students were the least likely of all graduates to have full-time jobs upon graduation (BCU, 1996:32).

Dance, Film, and Theatre. The relationship, however, is negative! The higher the GPA, the less likely the graduate is to be employed full-time.[18]

Departmental Grouping	*Correlation*	*Significance*
Business Related	.20	.125
Social Science	.02	.616
Humanities	-.08	.344
Languages and Linguistics	.03	.814
Math and Statistics	.14	.332
Computer Science	.28	.098
Other Sciences	-.19	.405
Physical Education	.03	.864
Dance, Film, and Theatre	-.33	.038
Fine and Visual Art, Cultural Studies, and Music	-.27	.065

Taken together, the foregoing suggest the simultaneous operation of processes consistent with socialization and certification theories. Initially, the fact that graduates with honours degrees, and graduates of particular departmental groupings, are more likely than others to get jobs suggests a process in which particular knowledge and skills are sought by employers. This finding affirms socializing theory. However, the fact that within departmental groupings in general there is no relationship between GPA and employment status affirms certification theory. Merely obtaining an honours degree or graduating in a particular field confers status independent of performance in that field.

Interpreting Results

The foregoing analysis has revealed a number of variables having an impact on whether or not graduates have full-time jobs. Now we can turn to the second step in the overall analysis: examining the combined effect of the variables on employment status. Logistic regression is a statistical technique that can help in this task.

Logistic regression will be of assistance in this task as from among the single variables found to be significant in the explanation of employment status it allows us to determine the effect of any one variable (such as GPA) after the

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[18]Consistent with this finding, Leslie and Brinkman (1988) found that 79% of the rate of private return on a bachelors degree was *independent* of students' ability.

effects of other variables (like family income and having a part-time job during school) have been removed. For example, as we saw, graduates from low income families and Black graduates were less likely than others to have full-time jobs. It might be, however, that the reason that Black graduates are relatively unlikely to be working full-time is not because they are Black, but because large numbers of Black graduates come from low income families. By using logistic regression we will be able to determine if this is the case.

Logistic regression has the further advantage of being able to provide researchers with estimates of the probability that individuals with certain characteristics will be employed full-time. For example, it was seen that a graduate from a family with a low annual income was less likely to have a full-time job than a graduate from a high income family. Similarly, a graduate who worked part-time during the school year was more likely than a non-working graduate to end up with a full-time job upon graduation.

On the basis of information such as this the logistic regression procedure involves the derivation of some general rules regarding the probability of graduates with specific characteristics having or not having full-time jobs. Once these rules have been formulated, they are tested by re-examining the same graduates and comparing the prediction of how many would be employed full-time based on characteristics, such as family income, to the number who actually hold full-time jobs. If large numbers of graduates predicted to hold full-time jobs are found to actually be employed full-time (later this will be referred to as the percent correctly predicted), we can be fairly confident that we have selected important variables in explaining who gets jobs.

Regression Analysis

In the preceding analysis, the following variables had a statistically significant relationship to employment status:

- Class (family income)
- Ethno-Racial Origin
- Weekly Tutorial Etc. Attendance
- Library Use
- Participation in Organized Sports
- Having Worked Part-Time in the Final Year
- Hours Per Week Worked
- Help from York Professor in Finding Job
- Help from Boy/Girl Friend in Finding Job
- Help from Former Employer in Finding Job
- Analytic Skills

- Communication Skills
- Organizing Skills
- Personal Skills
- Basic Computer Skills
- Degree Status
- Departmental Grouping

In order to assess the independent effects of these variables all were used in a forward conditional logistic regression procedure in which graduates with full-time jobs were coded 1 and those without full-time jobs were coded 0. Although it bore no statistically significant relationship to employment status, because of its centrality to arguments from the perspective of socialization theory, GPA was forced into the regression procedure at the final step. With the exception of GPA and the skills measures, all other variables were categorical with the first value as found in preceding tables defined as the reference category.[19] Parameter estimates for statistically significant variables identified in the logistic regression procedure are summarized in Table 9. With listwise deletion, 974 cases were used in the analysis.

In interpreting the results summarized in Table 9, attention will focus on the final column that gives, in percentage terms, the increases in the odds of having a full-time job for a one unit increase in the variable value listed in the left-hand column of the table. Note that with the exception of basic computer skills and GPA which are continuous variables, each variable label identifies a reference category.

Background Characteristics

The first variable in the background characteristics category compares graduates with family incomes from $26,000 to $99,999 to those in the reference category with incomes less than, or equal to, $25,999. The 152% in the final column for this variable means that, with the values of all other variables in the table assumed to be zero, the odds of graduates having full-time jobs who come from families with incomes in the $26,000 to $99,000 income category are 152% higher than the odds of graduates from families in the low income category having full-time jobs.

As seen from the second variable, the odds of a full-time job for graduates

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[19]Although a regression procedure was carried out in which all of the statistically significant variables in the preceding analysis were entered, the results of the forward conditional procedure seemed more appropriate to the current research task.

Table 9: Logistic Regression Parameter Estimates - Employed Full-Time

Variable	Reg. Coef.	df	Wald	Sig.	Odds Ratio	Increase in odds of having FT job for 1 unit increase in variable value
Background Characteristics						
Fam. income $26,000 to $99,999 vs LE $25,999	.926	1	12.75	.000	2.52	152%
GE $100,000 vs LE $25,999	1.382	1	19.32	.000	3.98	298%
DK vs LE $25,999	.714	1	6.64	.001	2.04	104%
Black vs European	-.659	1	4.00	.045	.52	-48%
Chinese vs European	-.784	1	6.44	.011	.46	-54%
Institutional Experiences						
Attend 91% to 99% tutorials/labs/studios vs LE 90%	-.45	1	4.12	.042	.64	-36%
Activities Outside University						
Hrs. week work GT 20 compared to LE 13	.70	1	11.25	.001	2.02	102%
Potential Job Networks						
Employer help find job yes vs no	.50	1	8.11	.004	1.65	65%
Generic Skills						
Basic Computer	.28	1	10.87	.001	1.32	32%
Program & GPA						
Social Science Dept vs Business Related	-.82	1	5.65	.018	.44	-56%
Math & Stats Dept vs Business Related	-.90	1	3.86	.049	.40	-60%
GPA (forced)	.06	1	.67	.414	1.06	6%

coming from a family with an income greater than, or equal to, $100,000 are 298% higher than for a graduate from a family in the lowest income category. The fact that graduates who report that they don't know their parental family income (the third variable) are 104% more likely than graduates from low income families to have a full-time job suggests that the former are unlikely to be from low income backgrounds.

The remaining two variables in the background characteristics category indicate a disadvantage in getting a job that is associated with ethno-racial origin. Compared to graduates of European origin, Black graduates are 48% less likely to have a full-time jobs. Graduates of Chinese origin are 54% less likely than those of European background to be employed full-time.

Clearly, class and ethno-racial origin have a large impact on whether or not a graduate will have a full time job. Also, as in regression analyses the effects of single variables are net of the effects of all others in the regression equation, class and ethno-racial origin can be thought to have an influence on full-time employment over and above the effects of skills, departmental affiliation, GPA, and so on. These findings are consistent with the postulates of labour market segmentation theory in which it is assumed that labour markets sort people out in terms of ascriptive factors such as gender and/or race and that knowledge and skills are not always the criteria in accordance with which people are hired.

Institutional Experiences

Among the variables, percent of tutorials, labs, or studios attended; frequency of library use; and having participated in organized sports, only differences between graduates who attended 91% to 99% of their tutorials etc. compared to those going to 90% or fewer made a statistically significant contribution to the regression. Consistent with the earlier tabular analysis, Table 9 shows that the odds of graduates having full-time jobs if they went to only 91% to 99% of their tutorials are 36% lower than if they went to 90% or fewer.

Although other studies from the perspective of student involvement theory have connected positive institutional experiences with outcomes such as intellectual development and retention, here the relationship between such experiences and finding a full-time job is minimal. Explanations for the one positive connection between having worked more than 20 hours a week will be offered later in a discussion of the overall implications of the findings.

Activities Outside the University

Neither having worked part-time, nor having done volunteer work, were related to having a full-time job; however, from the final column in Table 9 we can see that graduates who worked more than 20 hours per week while in school were 102% more likely to be employed full-time than those spending 13 or fewer hours in part-time work. Graduates who worked an intermediate 14 to 20 hours can presumed to be similar to the group working the least hours. Consistent with socialization theory, it could be that graduates working large number of hours acquired, at low cost to employers, knowledge and skills needed at particular work places that stood them in good stead upon graduation. Alternately, such students may have been able to convert part-time jobs into full-time employment.

Potential Job Networks

Although in the tabular analyses statistically significant relationships were found between, on the one hand, getting help from a York professor, a boy/girl friend, and a former employer, and, on the other hand, having a full-time job, in the regression analysis only having a former employer who assisted in the job search was significant. Graduates who reported that an employer was helpful in finding a job were 65% more likely than those with no such support to say that they were employed full-time.

Generic Skills

Among analytic, communication, organizing, personal, and basic computer literacy skills, in the regression analysis, only computer skills made a statistically significant contribution to our understanding of whether or not graduates had full-time jobs. On the five point computer skills scale, an increase in 1 enhanced the likelihood of having a full-time job by 32%. This finding is consistent with socialization theory.

Program and GPA

Although degree status (ordinary or honours) and departmental grouping had a statistically significant relationship to employment status in the earlier bi-variate analyses, only departmental grouping was related to the likelihood of having a full-time job in the regression analysis. As seen in Table 9, social science and math and statistics graduates were 56% and 60% respectively less likely than business related graduates to have a full-time job.

The corollary to this is that with adjustments made for other variables in the

regression, the odds of graduates of departmental groupings other than social science or math and statistics finding full-time jobs are no different than those of business related graduates. In essence, the advantage of graduates of business related departments revealed in the tabular analyses is in part a function of business graduates having other characteristics, such as relatively high parental incomes (class), that predispose to having full-time employment.

GPA, forced into the regression in the last step, bares no statistically significant relationship to whether or not graduates have full-time jobs.

It is difficult to explain the negative relationship between having a degree in the social sciences or from math and statistics and the odds of being employed full-time. At a very simplistic level it could be argued, consistent with the tenets of socialization theory, that the relative disadvantage of these graduates can be explained by the fact that their knowledge and skills are not valued by employers. This argument could be accepted if comparisons were restricted to graduates of business related departments or from dance, film, and theatre. It is hard to accept, however, that after adjustments for the other variables in the regression, a degree from the humanities is more valued by employers than one from the social sciences and math and statistics. Further investigation is required before conclusions can be made about the relative disadvantage of social science and math and statistics graduates.

Percent Correctly Predicted

The importance of the relationships summarized in Table 9 on whether or not a graduate has a full-time job can be driven home by reference to two hypothetical graduates. Each attended 91% to 99% of their tutorials, labs, or studios; scored 5.0 on the index of basic computer literacy; was a graduate of a business related department; and had a GPA of 6.48. In short, the graduates were the same in terms of skills and knowledge picked up in a university setting that might be valued by employers.

The graduates differ in that graduate A comes from a family with an income of $100,000 or more, is of European origin, worked more than 20 hours per week while attending school, and had an employer who was helpful in the job search. Graduate B has parents whose income is $25,999 or less, is Black, worked 13 or fewer hours per week, and did not have an employer who was helpful in the hunt for a full-time job. The probability of graduate A having a full-time job is .67; for graduate B it is .25. In essence, graduate A is likely working full-time while graduate B most probably is still looking for a full-time job.

If we use the regression coefficients in Table 9 to categorize students in the

above fashion, overall, we will correctly predict their employment status 68% of the time. Our ability to predict who will have a full-time job is, however, slightly better than that of predicting who will not be employed full-time. On the basis of the regression we will be correct in 73% of our predictions of full-time employment and in 63% of our predictions that graduates will not have a full-time job.

Qualifications

The preceding analysis shows that a lot of the difference between the graduates is related to their class and ethno-racial origin. As a result, it is tempting to argue that labour market segmentation theory has a large role to play in explanations of who gets, and does not get, full-time jobs. Before this argument can be made with conviction, however, it is necessary to examine the salary expectations of graduates and certain skills not previously analysed that might affect employability. Perhaps the relatively high percentages of low income graduates and graduates who are Black or of Chinese background without full-time jobs can be explained by unreasonable salary expectations or by relatively low levels of job skills not previously discussed.

An examination of salary expectations shows that, if anything, low income graduates without jobs are prepared to settle for lower wages than graduates from other class groups. Whereas only 8.9% of graduates in the lowest income category expected $40,000 or more per year before they would consider a job, the figure for graduates in the high income group is 16.7%. These findings are statistically significant.

There is no statistically significant difference in expectations based on ethno-racial origin. Thus, high salary expectations do not explain the relative lack of full-time employment of low income graduates or graduates who are Black or of Chinese origin.

In order to see if graduates of different classes and ethno-racial origins had a number of important job skills that might have implications for employment status, each survey participant was presented with the following scenario:

> Assume that an advertising agency has just hired a York graduate from each of Arts, Fine Arts, Science, and Administrative Studies. You are one of them. You have all been hired to work on the account of a major Canadian producer of canned foods who wants to break into the Swedish market. On your first Monday on the job the four of you are given an assignment to write an 8 - 10 page report on the eating habits of Swedes. On the following Monday you and the other three graduates must give both the written report,

and a 20 minute verbal presentation of the report, to a group of ten people from the company that wishes to get a foothold in the Swedish market. How difficult would you find each of the following?

Graduates were asked 13 questions focusing on the difficulty they would have with the following matters:

- The *idea* of having to work with other graduates.
- Working co-operatively with other graduates.
- Assuming a leadership role.
- Being able to organize time effectively so that responsibilities could be completed on time.
- Knowing where to look for information.
- Being able to read relevant numerical tables.
- Separating good information from bad.
- Writing the report in good and concise English.
- Using a word processor to type the report.
- Summarizing the report so that enough information would be available for a 20 minute presentation.
- Knowing the best way to present the report - handouts, overheads, graphs, etc.
- Knowing how to dress for the presentation.
- Actually presenting a verbal summary to company officials.

Although when all graduates were analysed together there was no statistically significant correlation between an index based on responses to these questions and whether or not graduates had full-time jobs, there were important differences among groups.

Graduates from low income families were slightly more likely than others to state that they would have difficulty with the idea of having to work with other graduates, assuming a leadership position, writing the report in good and concise English, and presenting a verbal summary to company officials. In essence, graduates from low income families reported a slight deficit in skills that might be valued by employers; however, as the deficit is small, it is unlikely that it could explain the large disadvantage displayed by low income graduates in terms of actually having a full-time job.

When examinations were made on the basis of ethno-racial origin, Black graduates thought that they would have more difficulty than others in assuming a leadership position, separating good information from bad, and knowing how to dress for the presentation. Again, differences were small and are unlikely to explain why Black graduates are less likely than those of European origin to have a full-time job.

By contrast, examinations of graduates of Chinese background revealed substantial deficiencies in many areas. Overall, while only 15.9% of graduates said they would have difficulty working in a group the figure for those of Chinese origin was 37.5%. Whereas 24.7% of all graduates felt that they would have difficulty assuming a leadership position, 46.7% of Chinese background graduates thought they would have difficulty with this responsibility. Overall, 20.1% of graduates believed they would have no problem in separating good from bad information but 30.0% of Chinese origin graduates thought they would have trouble with this task. Whereas 45.4% of Chinese background graduates stated they would have difficulty with writing in good and concise English, only 16.5% of all graduates had similar reservations. Although 19.4% of graduates thought they would encounter difficulties summarizing the report for the presentation, 37.5% of Chinese origin graduates were worried about this aspect of their hypothetical job. In total, 21.0% of graduates thought it might be difficult to know the best way to present the materials but 35.0% of Chinese graduates had this concern. While only 9.4% of graduates thought they would have problems in knowing how to dress for the presentation, 26.0% of Chinese background graduates expressed concern in this area. Finally, while only 28.6% of all graduates felt that they would have difficulty in presenting the summary to company officials, 48.3% of Chinese background graduates expressed concern with their ability to do this task. Importantly, all of the differences are statistically significant.[20]

In essence, for low income and Black graduates it is hard to argue that their relative lack of employment can be attributed to lack of skills that might be valued by employers. For those of Chinese origin, however, skill deficits in the areas analysed must be taken into consideration in explanations of low full-time employment rates.

Interpretation

What these data suggest, is that for graduates who are similar in terms of institutional experiences, activities outside of university, potential job networks,

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[20]A couple of colleagues have suggested that these findings may reflect lack of self-confidence on the part of Chinese origin students rather than lack of skills. While there may be some merit to this hypothesis, lack of self-confidence is unlikely to explain all of the difference noted. More importantly, there are some items for which there is no statistically significant difference between Chinese origin and other students: the idea of working in groups, being able to organize time, knowing where to look for information, being able to read numerical tables, and using a word processor. Presumably, if graduates of Chinese origin had a general lack of self-confidence, it should be evident in their self-assessments of these skills.

generic skills, program and GPA, graduates from low income families, Blacks, and graduates of Chinese origin are at a serious disadvantage in the labour market at the time of, or just after, graduation.

For low income and Black graduates a good portion of the likelihood of having a full-time job is explicable from the point of view of labour market segmentation theory. Graduates are not competing in a labour market in which subject matter expertise, skills, and grades alone determine who will get the jobs. Class and ethno-racial origin come between this ideal and reality in a serious way.

For graduates of low income families it is difficult to trace the ways in which class becomes manifested in relatively low numbers of full-time jobs. It was originally thought that the advantage of coming from relatively well-off families might be translated into full-time employment via the acquaintanceship with individuals, such as family friends, who might be able to assist in the job search.[21] However, this is not the case. As a result, in addition to the variables captured in this study, lack of self-confidence in the face of middle class interviewers; lack of knowledge of dressing codes; non-conventional speech patterns; and not having a car that would help in pursuing employment options in remote parts of the city, are all possible hidden injuries of class that might work to the disadvantage of low income graduates in getting full-time jobs. While some of these disadvantages would apply to low income Black graduates, their difficulties could be exacerbated by their visibility and negative racial stereotypes. Although some of these processes may also limit the opportunities of Chinese origin graduates, the evidence also suggests that in view of their self-assessed deficiencies in many job skill areas, a relative lack of human capital must also be taken into account in explanations of their job situation.

Conclusion

The intent of this article was to examine the *initial* labour market experiences of graduates with B.A.s from York University and determine who got jobs. We do not know if the variables that help us understand labour market experiences in this approximate three month period after graduation are the same as those that will be of assistance two and five years after graduation. Future research will be required before we will be able to confront this important issue.

What we do know is that in the initial contact with the labour market a good number of graduates, 54%, found full-time jobs in a relatively short time. This is

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[21]Readers should not lose sight of the fact that even some relatively well off students at York, e.g. those coming from families with incomes in the $26,000 to $99,999 bracket (the largest single group), are hardly rich.

the good news. The bad news is that graduates from low income families and particularly those who are Black, even after consideration is given to a number of other things that might affect employability, have less success in obtaining full-time jobs than other graduates. Results such as these are interpretable from the perspective of labour market segmentation theory in which it is assumed that variables such as class and race affect employability.

A corollary is that socialization theory only goes a limited distance in explaining who gets jobs. Certainly, graduates from business related departments have an advantage particularly when compared to graduates in the social sciences and math and statistics. Also, graduates who have basic computer skills do better than others. However, the advantage conferred by taking the right subjects or by having a minimal level of computer literacy is over-shadowed by the disadvantage connected with class and ethno-racial origin.

Perhaps most surprising is the finding that grades, the quintessential measure of excellence in universities, is of no help in explaining who gets jobs. This finding may be interpreted from the viewpoint of certification theory in which it is postulated that education confers a status on individuals that may be independent of their ability: provided that graduates are from particular income and racial-ethnic groups, and as long as they have taken subjects valued by employers, getting or not getting a full-time job is independent of academic achievement as measured by grades.

Consistent with socialization theory, having a job in which graduates worked part-time while still going to school was an outside activity with important implications for full-time work upon graduation. In these jobs it is likely that graduates acquired skills valued by employers and that they made connections that stood them in good stead when seeking full-time employment. Indeed, given the importance of this variable to the likelihood of having a full-time job upon graduation, many graduates should be viewed as being in the process of transition to work while still in school.

Finally, despite the contribution of student involvement theory to the understanding of many university outcomes, it is of little assistance in explaining who gets jobs. Indeed, the finding that graduates with low levels of tutorial etc. attendance are more likely than others to get full-time jobs may itself be a reflection of the fact that graduates working large numbers of hours (a predictor of having a full-time job upon graduation) have little time to attend tutorials, labs, or studios.

To what extent is the situation at York similar to that in other Canadian universities? A full answer cannot be given to this question until other institutions carry out comparable research on their graduates. In the meantime

we can argue that a great deal of the employment success of recent graduates can be related to local labour market conditions. Where there is a low rate of unemployment, it is likely that variables such as low family income (class) and being Black are less related to who gets jobs than where unemployment is relatively high. Where rates of unemployment in the local labour market are similar to those in Toronto, and where the composition of the graduate body is comparable to that at York, similar rates of full-time employment can be expected.

In the Toronto context this means that the initial short-term labour market experiences of graduates of both York and the University of Toronto likely are similar for graduates of comparable departments. The same is true for graduates of Queen's, Western, or any other university from which graduates living in Toronto received their degrees. *The problem is not one of from which university students graduated, but the nature of the local labour market.* Within this context, graduates of Ryerson may have more short-term success in finding jobs because of the applied nature of its programs and the fact that some programs have a co-op component.

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